

REMARKS

THE PERRY REFERENCE

The Examiner cites Perry et al. (US 6896748) as a primary reference in the prosecution history of this case. The Applicant respectfully considers Perry as a reference that is not relevant to the case at hand, primarily because the Perry reference was filed prior to the effective filing date of the current application, which was December 16, 1999. The parent application, which is now US 6878250, and one of the priority applications, US Provisional Application 60/396544, which was filed on June 16, 2002, both predate the filing date of the Perry reference – July 18, 2002.

The Examiner responded to this assertion by stating that the effective filing date of the claims is July 9, 2003, because the claims were not supported by the parent document – US 6878250 ("the '250 patent"). Unfortunately, the Examiner is incorrect. The Examiner uses Perry against the claims with respect to the grain size and the alloying elements. The '250 patent discloses targets containing copper and copper alloys having a grain size of less than 1 micron with substantial absence of pores, voids, inclusions and other casting defects, while also having a substantially uniform structure and texture at any location (see Summary of the Invention). Perry is not being cited with respect to the percentage of copper, and frankly, it wouldn't be a proper citation in that regard either, since the '250 patent clearly discloses high strength monolithic copper targets.

The Examiner uses the Perry reference in combination with Pavate et al. to show a method of forming copper alloy sputtering targets that achieve grain sizes as small as 0.1µm. (see 9-27-2006 Office Action, page 3). These grain sizes ("grain size less than about 1 micron" – see Column 2, line 51) are specifically taught in US 6878250, which is the parent disclosure to the present application. (please see the Summary of the Invention; Col. 5, lines 5-15; Col. 10, lines 23-47).

The Examiner also uses the Perry reference to teach that the process achieved a

uniform microstructure throughout the target. (see 9-27-2006 Office Action, page 3). This uniform microstructure was also specifically taught throughout US 6878250, including Cols 11-12).

The Examiner uses the Perry reference to teach a copper alloy sputtering target having alloying elements and a reduced grain size. (see 9-27-2006 Office Action, page 4). Alloying elements are taught in US 6878250 (see Column 4, lines 42-44: "High strength monolithic targets may be fabricated from mild materials like pure aluminum, copper, gold, platinum, nickel, titanium and their alloys").

The Examiner uses the Perry reference in combination with Pavate et al. to teach a copper alloy sputtering target having alloying elements of Mg, Zn or AL and a reduced grain size. (see 9-27-2006 Office Action, page 6). These alloying elements are taught in US 6878250 and in US Provisional Application 60/396544, also filed before the Perry reference was filed.

The Examiner uses the Perry reference in combination with Pavate et al. and Nagano et al. to teach a copper alloy sputtering target having alloying elements and an increased hardness. (see 9-27-2006 Office Action, page 6). The deficiencies of the Perry reference are supplemented by the Nagano and Pavate references; however, the Perry reference didn't exist when the current disclosure was filed, and therefore, Nagano and Pavate cannot possibly supplement Perry. These embodiments are taught in US 6878250 and in US Provisional Application 60/396544, also filed before the Perry reference was filed.

The Examiner finally rejects the previous arguments on the basis that Perry teaches that if the recrystallization temperature is too high that there is an undesired growth of grains. It has been shown that the US 6878250 and USSN 60/396544 applications predate the Perry filing date, and therefore, the reasons for the Examiner's continued rejections based on Perry are mooted.

The Perry Reference should be immediately withdrawn as a reference in this case

that speaks to unpatentability for the reasons stated. In addition, the following rejections should be reconsidered by the Examiner:

Claims 16 and 19-28 are rejected under 35 USC §103(a) as being unpatentable over Pavate et al. (US 6391163) in view of Perry et al. (US 6896748).

Claims 29-30 and 32-37 are rejected under 35 USC §103(a) as being unpatentable over Perry et al. (US 6896748).

Claims 31, 38 and 39 are rejected under 35 USC §103(a) as being unpatentable over Perry et al. (US 6896748) in view of Pavate et al. (US 6391163).

Claim 110 is rejected under 35 USC §103(a) as being unpatentable over Perry et al. (US 6896748) in view of Nagano et al (US 2001/0035238) and Pavate et al (US 6391163).

The Examiner has used the Perry reference as the primary reference to either continue the first rejection of Pavate in view of Perry or to make the last three rejections. Therefore, the Examiner should reconsider this case without the knowledge of the Perry reference, since it was not in existence as of the earliest filing date of the first application.

The Applicant herein restates the arguments related to Pavate et al. as shown in the Request for Continued Examination. The Applicant also considers the application of the Nagano reference as mooted, since its a secondary reference to add to the teachings of Perry, which have been shown to postdate the current application's effective filing date(s).

The Applicant also respectfully requests that this case be put in condition for allowance or that the Examiner contact the undersigned attorney of record at the number listed to discuss this case in full and any remaining rejections/issues, so that an Appeal can be avoided. The Applicant additionally requests that in view of the information presented herein related to the Perry reference that the Examiner consider issuing another non-Final

office action, if this case is not in condition for allowance, since any new action is not necessitated by amendments, but is instead based on a request for consideration.

REQUEST FOR ALLOWANCE

Claims 16, 19-39 and 110 are pending in this application, and the Applicant respectfully requests that the Examiner reconsider all of the claims in light of the arguments presented and allow all current and pending claims.

Respectfully submitted,

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Dated: 1/15/2008

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